

2

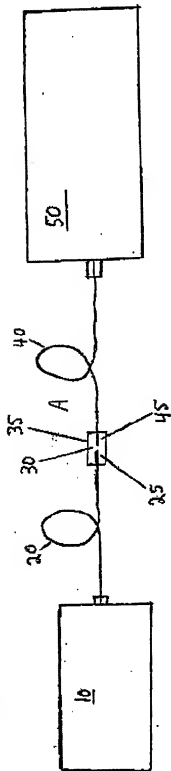


Fig. 1

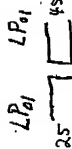


Fig. 2A

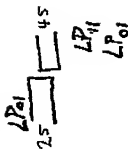
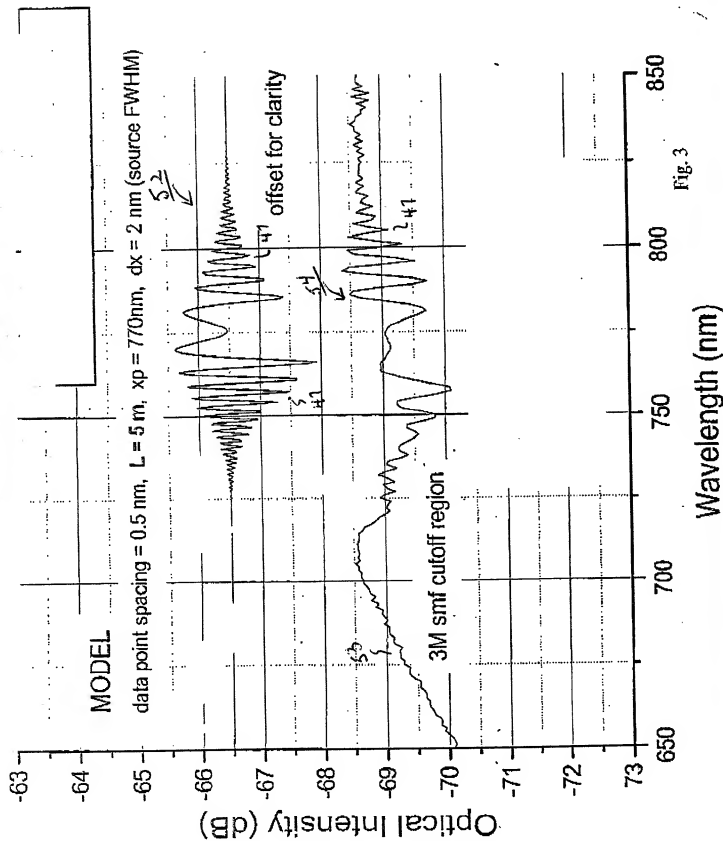


Fig. 2B



# Coherence Damping for Various Source Linewidths

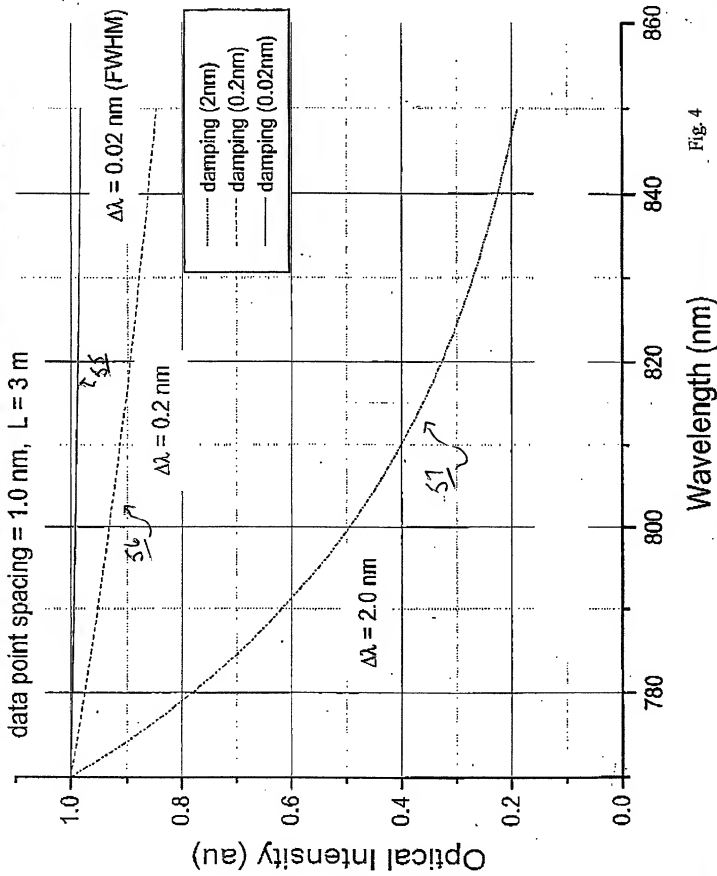


Fig. 4

Simulated Spectrum for Optical Fiber Length = 10 m

$L = 10$  m,  $x_p = 770$ ,  $0.5$  nm spacing,  $\Delta x = 0.40$  nm source spectral width, FWHM

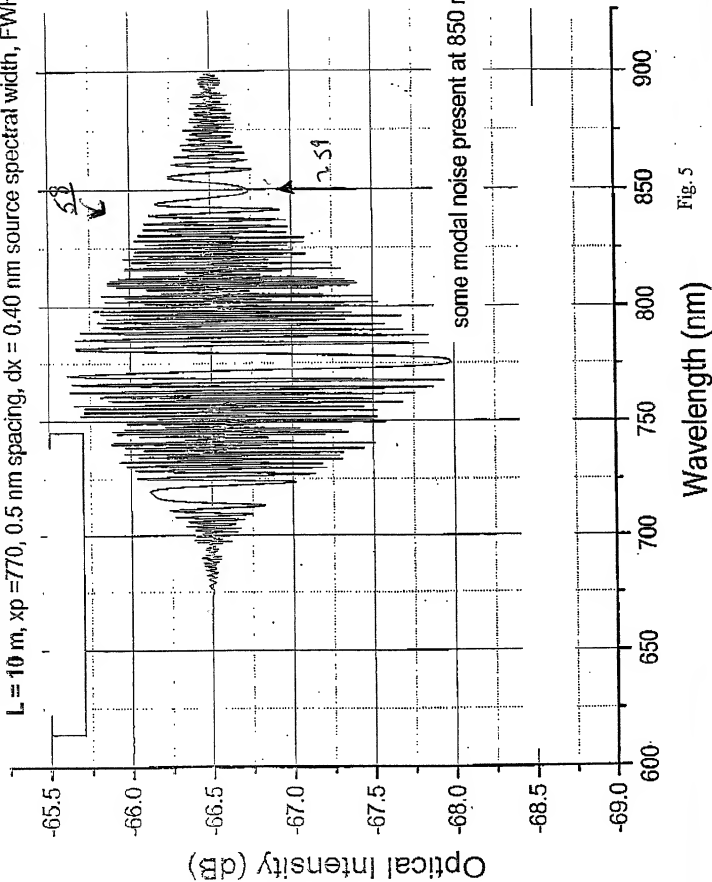


Fig. 5

# Simulated Spectrum for Optical Fiber Length = 20 m

$L = 20$  m,  $x_p = 770$ ,  $0.5$  nm spacing,  $dx = 0.40$  nm source spectral width, FWHM

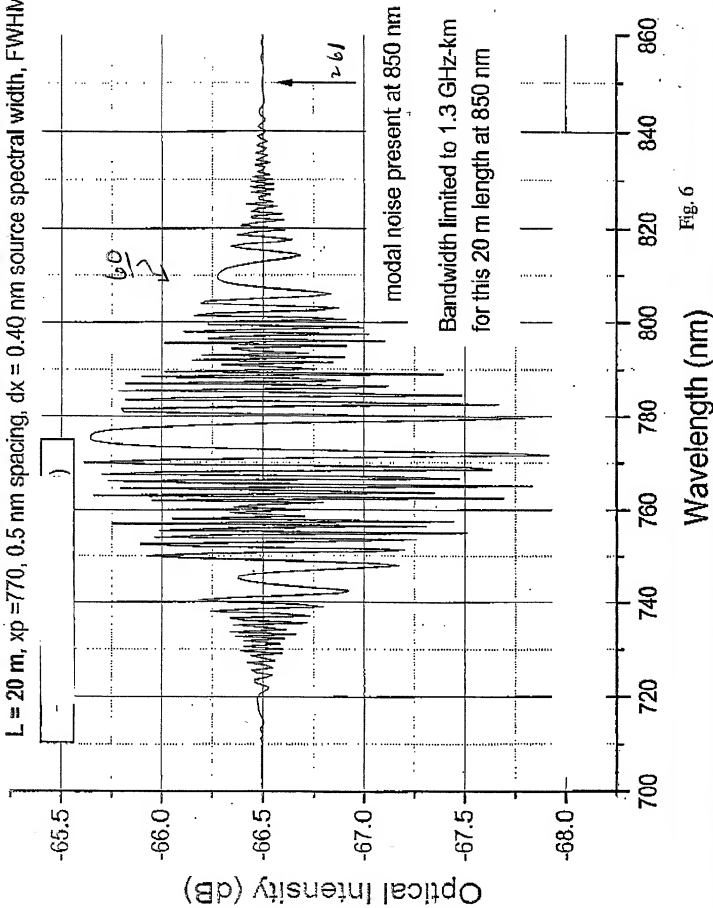


Fig. 6

# Simulated Spectrum for Optical Fiber Length = 50 m

$L = 50$  m,  $x_p = 770$ , 0.5 nm spacing,  $dx = 0.40$  nm source spectral width, FWHM

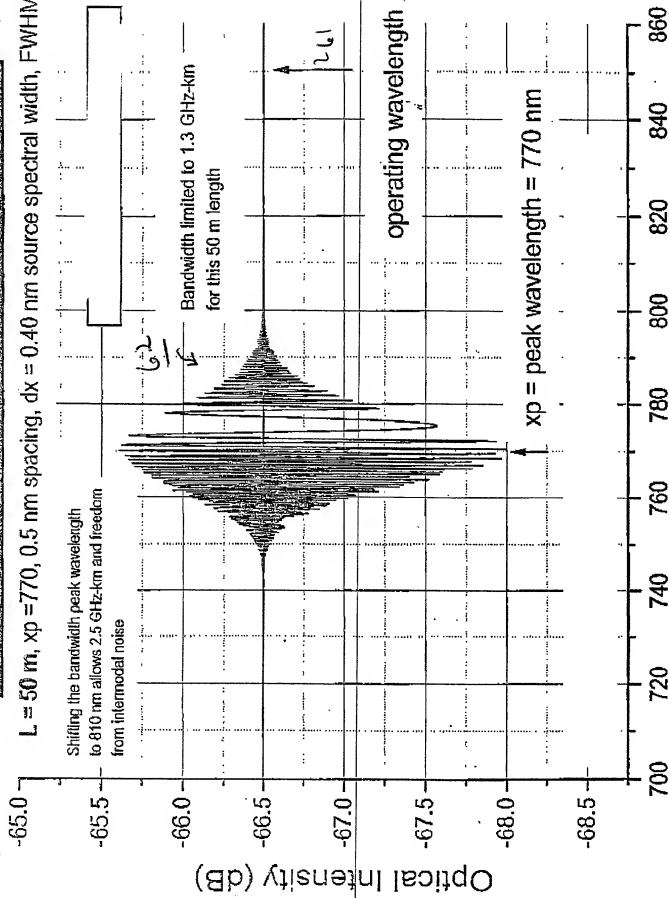
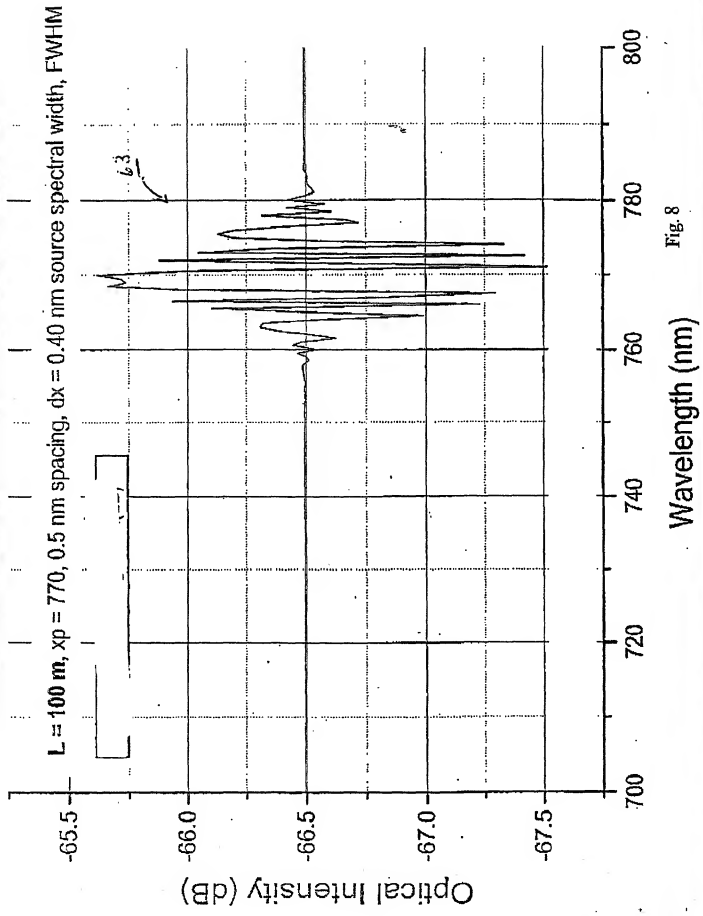


Fig. 7

Wavelength (nm)

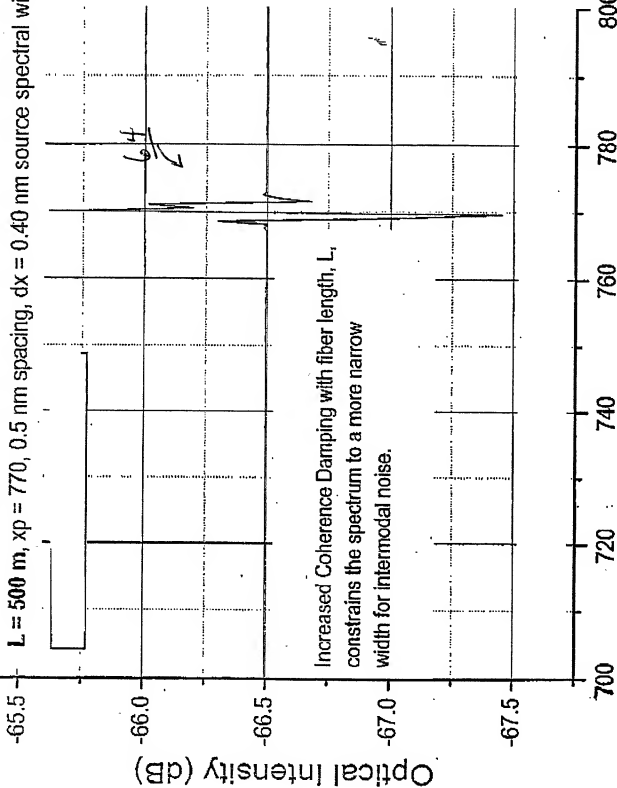
200220-26258001

Simulated Spectrum for Optical Fiber Length = 100 m



# Simulated Spectrum for Optical Fiber Length = 500 m

$L = 500$  m,  $x_p = 770$ ,  $0.5$  nm spacing,  $dx = 0.40$  nm source spectral width, FWHM



Increased Coherence Damping with fiber length,  $L$ ,  
constrains the spectrum to a more narrow  
width for intermodal noise.

Fig. 9



# Simulated Spectrum for Optical Fiber Length = 1000 m

$L = 1000$  m,  $x_p = 770$ ,  $0.5$  nm spacing,  $dx = 0.40$  nm source spectral width, FWHM

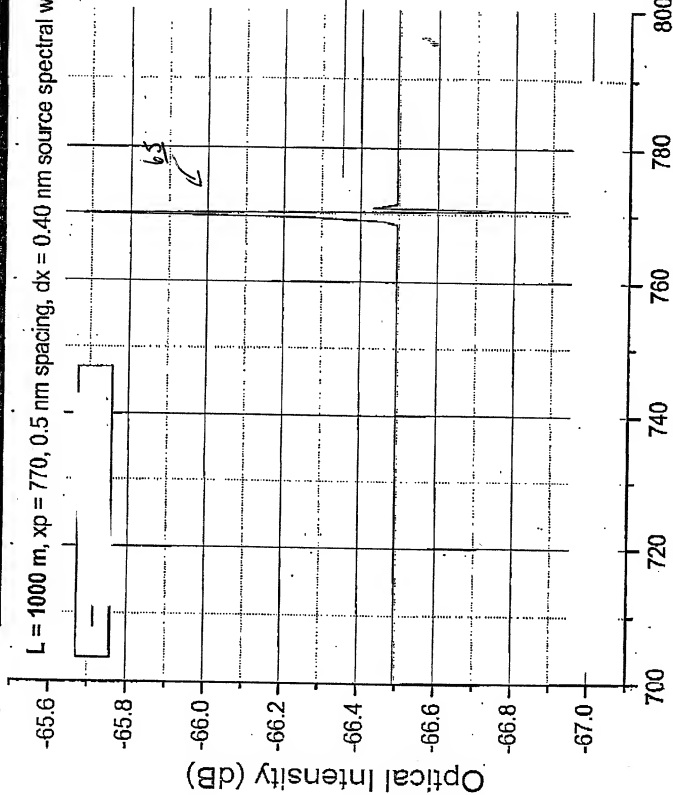


Fig. 10

# Simulated Spectrum for Optical Fiber Length = 2000 m

$L = 2000$  m,  $x_p = 770$ ,  $0.5$  nm spacing,  $dx = 0.40$  nm source spectral width, FWHM

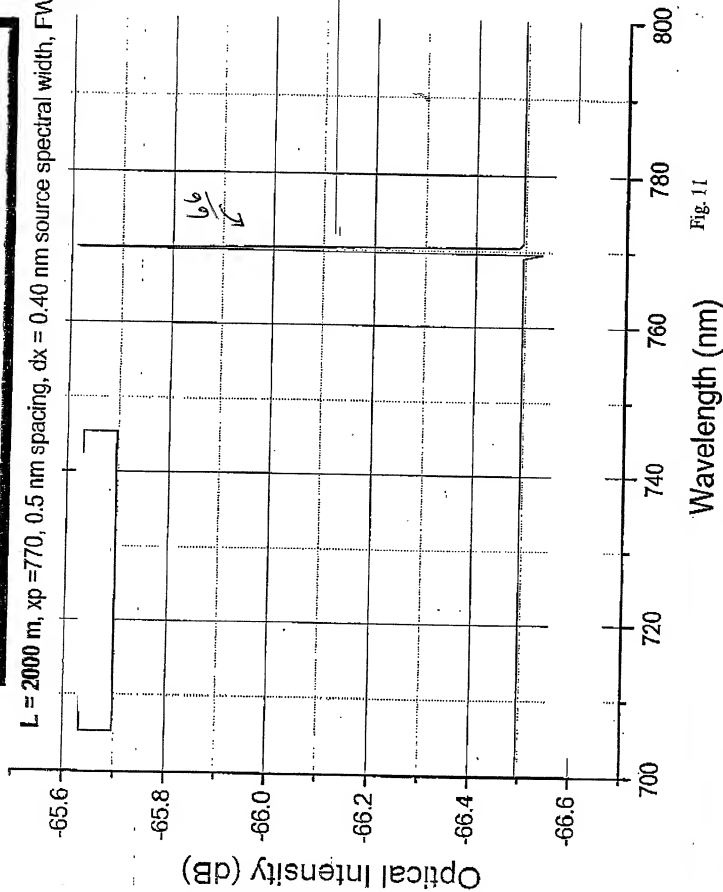
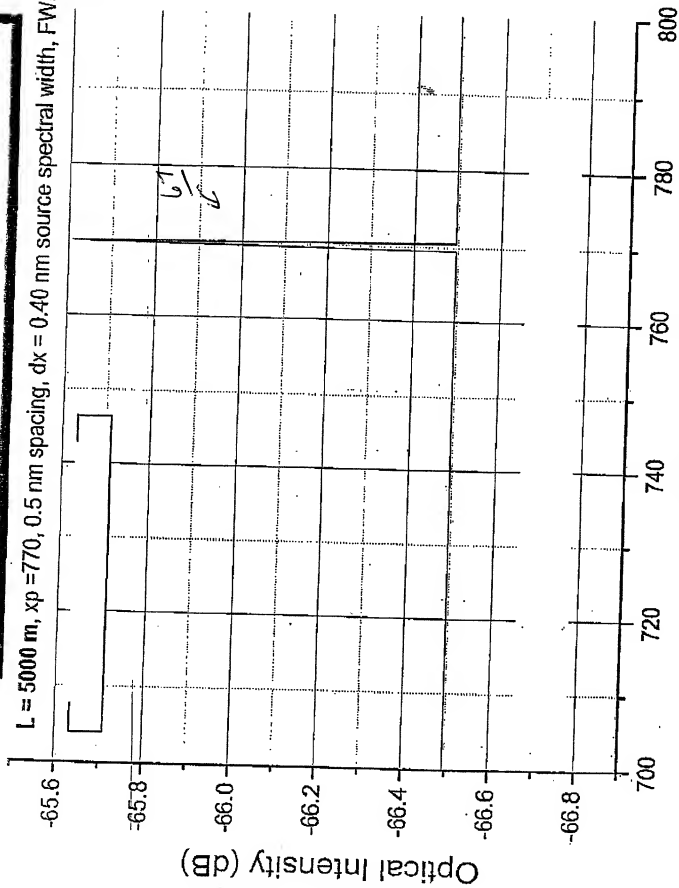


Fig. 11

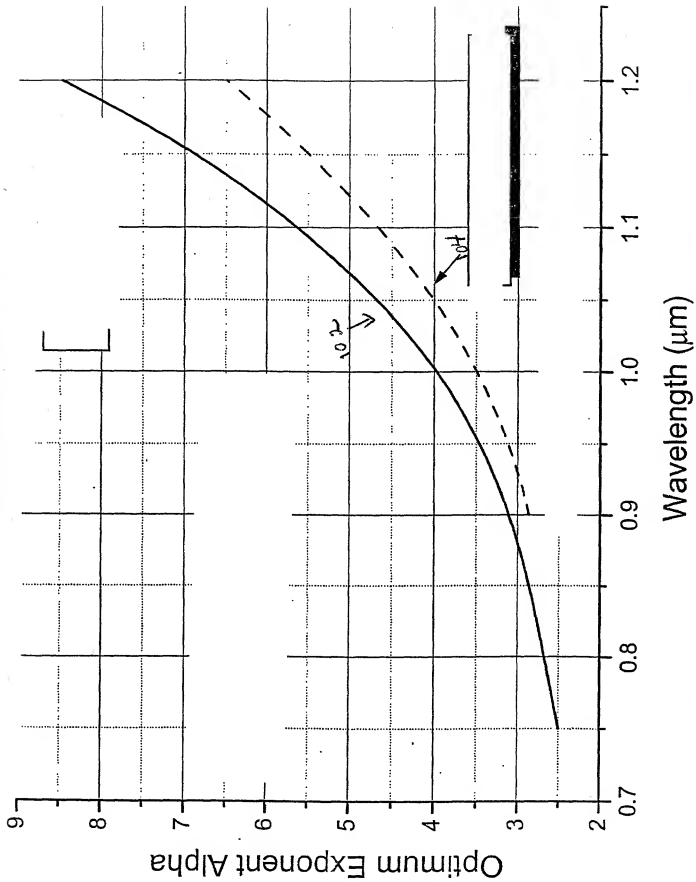
# Simulated Spectrum for Optical Fiber Length = 5000 m

$L = 5000$  m,  $x_p = 770$ ,  $0.5$  nm spacing,  $\Delta x = 0.40$  nm source spectral width, FWHM



Wavelength (nm) Fig. 12

209516 13 4425901



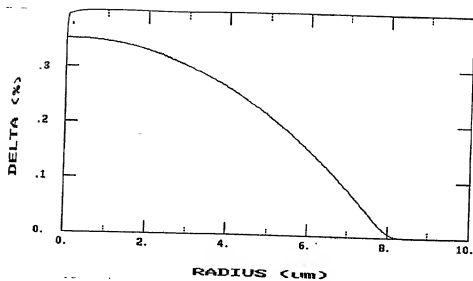


Fig. 14